

February 23, 2023

**MEMORANDUM**

To: Suzanne Simone, Environmental Planner  
Conservation Commission

From: Daniel A. Pennington, Town Engineer / Director of Physical Services



Re: Request for Informal Conservation Commission Review  
Bell Street Sidewalk Project, Gideon Lane to Bellridge Road  
PW-2013

The Town of Glastonbury is proposing the construction of approximately 3,550 linear feet of new 4-foot-wide concrete sidewalk along Bell Street at two separate project areas. Project Area 1 includes the section of Bell Street from Gideon Lane to Bellridge Road a distance of 2,700 linear feet, and Project Area 2 is located on the Town property at the northwest corner of Bell Street and Hebron Avenue a distance of 850 linear feet. Together these two projects will provide pedestrian connectivity for approximately 330 single family home on Bell Street to access various side streets with the project area, the existing multi-use trail system, and Hebron Avenue Elementary School. This project has received funding under the Community Connectivity Grant Program through the CT Department of Transportation based on its merits in improving pedestrian connectivity within the project area. Relevant excerpts from the grant application are attached to this memorandum to better describe the project purpose and need and to help the Commission understand the relative importance of the project.

Sidewalk installation along Bell Street in Project Area 1 follows the west side of Bell Street from Gideon Lane a distance of approximately 2,000 feet to the northly intersection of Bell Street with Somerset Road. The sidewalk crosses to the east side just north of Somerset Road, and then extends an additional 700 feet to meet the existing sidewalks constructed as part of the Stallion Ridge 29-Lot Subdivision near Bellridge Road. The sidewalk alignment in this area generally follows the alignment of the existing overhead utilities in order to minimize impact to mature trees along the Bell Street corridor. The location of the proposed mid-block crosswalk at the northerly intersection with Somerset Road was selected to maximize sight distance for the crossing.

Surficial soils within the project area are shown on the attached soils maps, and generally consist of Manchester Gravelly Loam, Wethersfield Loam, and Ludlow Silt Loam. Wetlands along the project corridor were delineated by a Certified Soil Scientist in March of 2022 as described in the attached letter report. An intermittent watercourse was identified within Project Area 1 along Bell Street at the Bayberry Road intersection on property of #285 Bell Street (Wetland Area 1). A second intermittent watercourse on the west side of the road and associated pond on the east

side of the road was identified approximately 300 feet north of the northerly Somerset Road intersection at #408 Bell Street (Wetland Area 2). Both of these locations have existing cross culverts conveying flow under Bell Street and paved leak-offs currently convey stormwater run-off from Bell Street and surrounding properties into the adjoining intermittent watercourse and wetland area. No wetlands were found in Project Area 2 at the Hebron Avenue / Bell Street intersection.

Construction of the proposed sidewalk in the vicinity of Wetland Area 1 near the Bayberry Road intersection presents some challenges due to the steep drop-off of the roadway shoulder in this area and the relatively poor condition of the existing drainage facilities. A deteriorated stone masonry headwall (age unknown) serves as the outlet of the culvert and a heavily eroded paved leak-off is located on the south end of the headwall. Photos depicting this area are included as an attachment to this application. Based on the condition of the existing headwall and eroded leak-off, it is evident that repair or replacement of the headwall should be considered in the near future and improvements should be considered to address erosion at the leak-off.

The Town's preferred design alternative for this area is depicted on the attached preliminary plans and includes extension of the existing 24-inch-diameter concrete culvert under Bell Street approximately 15 feet to a new concrete headwall outlet with installation of a riprap scour hole for outlet protection. The shoulder of the roadway would then be built up with gravel fill in order to support the new sidewalk. A new catch basin with sump would be installed in place of the eroded leak-off with a second discharge pipe incorporated into the new headwall. This catch basin would improve water quality for discharges from Bell Street by reducing erosion potential from the leak-off and providing a sump for retention of sediment from the roadway. This design option would require filling a 15-foot-long section of the intermittent watercourse for the concrete pipe and headwall installation with an additional 15 linear feet impacted in order to accomplish installation of the proposed riprap scour hole. The property owner at #285 Bell Street has been consulted and is willing to grant the Town the necessary easements to accomplish the work as depicted on the plans.

An alternative to the Town preferred design option described above for Wetland Area 1 would involve installation of a pedestrian bridge to span the intermittent watercourse. The existing headwall would still need to be rehabilitated or replaced in or near its current location since the pedestrian bridge would span over the existing headwall thereby preventing future access for maintenance. A new catch basin and drainage discharge would also be installed to replace the existing eroded leak-off similar to the design described above, and a new riprap scour hole installed at the existing headwall discharge to reduce potential for downstream erosion. Abutment excavation would not adversely affect the intermittent watercourse but would require temporary shoring to support Bell Street traffic during construction. Estimated wetland impact for this option is approximately 15 to 20 linear feet of intermittent watercourse impact for rehabilitation of the headwall and installation of the riprap scour hole. It would also be costlier to construct and would create a long-term maintenance burden for the Town to own and maintain another steel pedestrian bridge.

Construction of the sidewalk in the vicinity of Wetland Area 2 will incorporate a section of modular block retaining wall approximately 100 feet long and 3 feet tall to eliminate

the need for any permanent wetland impact in this area. Approximately 180 square feet of temporary wetland impact is expected along the length of the wall due to installation of the silt fence and excavation for the wall footing. Any disturbed areas would be restored with an appropriate wetland seed mix. An existing leak-off from Bell Street at Wetland Area 2 would also be replaced with a catch basin with sump that would be connected to the existing discharge pipe for the cross culvert located just north of the retaining wall. This catch basin would also improve water quality for discharges from Bell Street by reducing erosion potential from the leak-off and providing a sump for retention of sediment from the roadway.

We look forward to discussing this project further at the upcoming Inland Wetlands / Conservation Commission meeting. Additional copies of the plans and related project materials can be provided at your request. Please let me know if you have any questions or need any additional information.

cc: Stephen M. Braun, Assistant Town Engineer